

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of :**

Grace Sun et. al.

**Serial No. :** 10/721,971

**Filed :** November 24, 2003

**For :** Method for Creating Barrier Layers  
for Copper Diffusion

2018年12月25日

Group Art Unit : 2811

**Examiner :**

Attv Docket : LSI1P235 / 03-1119

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Mark Salvatore

June 23, 2004  
Date

**Signature**

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## INFORMATION DISCLOSURE STATEMENT

JUN 23 2004

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The references listed in the attached form, copies of which are attached, may be material to examination of above-identified application. Applicants submit these references in compliance with their duty of disclosure pursuant to 37 CFR 1.56 and 1.97.

It is requested that the information disclosed herein be made of record in the application.

This Information Disclosure Statement is not to be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, or that these references indeed constitute prior art.

If it is determined that any additional fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 12-2252.

LSI Logic Corporation  
1621 Barber Lane, MS D-106  
Milpitas, CA 95035  
408-433-7475

Date: 23 Jun 04

Respectfully submitted,

25/11/11

Timothy Croll

Reg. No. 36,771



Please type a plus sign (+) inside this box

PTO/SB/21 (12/87)  
Approved for use through 9/30/2000. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/721,971	
	Filing Date	November-24, 2003	
	First Named Inventor	Grace Sun	
	Group Art Unit	2811	
	Examiner Name		
Total number of pages in this submission	4	Attorney Docket Number	LSI1P235 / 03-1119
<b>ENCLOSURES (check all that apply)</b>			
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers	<input type="checkbox"/> After Allowance Communication to Group	<b>1. Return address postcard for PTO mailroom to date stamp.</b>
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and	
<input type="checkbox"/> Amendment/Response	<input type="checkbox"/> Licensing-related Paper	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)	
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition Routing Slip (PTO/SB/59) and Accompanying Petition	<input type="checkbox"/> Proprietary Information	
<input type="checkbox"/> Affidavits(s)/declaration(s)	<input type="checkbox"/> To Convert a Provisional Application	<input type="checkbox"/> Status Letter	
<input type="checkbox"/> Extension of time request	<input type="checkbox"/> Power of Attorney, Change of Correspondence Address	<input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below):	
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer		
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Small Entity Statement		
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Request for Refund		
<input type="checkbox"/> Response to Missing Parts/Incomplete Application	Remarks		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53			
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>			
Individual Name	Timothy Croll, Reg. No. 36,771, Phone: [+1] 408-433-7472		
Signature			
Date	23 Jun 04		
<b>CERTIFICATE OF MAILING</b>			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: June 23, 2004			
Typed or printed name	Mark Salvatore, Phone: [+1] 408-433-7472		
Signature			Date
			6-23-04

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PTO/SB/17 (2/98)

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**FEE TRANSMITTAL**

Patent Fees are subject to annual revision on October 1.

These are the fees effective October 1, 1997.

Small Entity payments must be supported by a small entity statement, otherwise large entity fees must be paid. See Forms PTO/SB/09-12. See 37 C.F.R. 1.27 and 1.28.

TOTAL AMOUNT OF PAYMENT (\$)

(\$)

0

Complete if Known

Application Number	10721,971
Filing Date	November-24, 2003
First Named Inventor	Grace Sun
Group Art Unit	2811
Examiner Name	
Attorney Docket No.	LSI1P235 / 03-1119

## METHOD OF PAYMENT (check one)

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any over payment to:

Deposit Account Number 12-2252

Deposit Account Number LSI LOGIC CORPORATION

- ☒ Charge Any Additional Fee required Under 37  
☐ Charge the Issue Fee Set in 37 C.F.R. 1.16 at the Mailing of the Notice of

2. ☐ Payment Enclosed:

☐ Chec ☐ Money Order ☐ Other

## FEE CALCULATION

## 1. BASIC FILING FEE

Larg eFee Code	Entit yFee (\$)	Larg eFee Code	Entit yFee (\$)	Fee Description	Fee Paid
101	790	201	395	Utility filing fee	
106	330	206	165	Design filing fee	
107	540	207	270	Plant filing fee	
108	790	208	395	Reissue filing fee	
114	150	214	75	Provisional Filing fee	

SUBTOTAL (1) (\$0.00)

## 2. EXTRA CLAIM FEES

Total claim	Extra Claim	Fee from below	Fee Paid
Independent Claims	-20**=		
Multiple Dependent	-3**=		

\*\*or number previously paid, if greater; For Reissues, see below

Larg eFee Code	Entit yFee (\$)	Larg eFee Code	Entit yFee (\$)	Fee Description
103	22	203	11	Claims in excess of 20
102	82	202	41	Independent claims in excess of 3
104	270	204	135	Multiple dependent claim, if not paid
109	82	209	41	**Reissue independent claims over original patent
110	22	210	11	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$0.00)

## FEE CALCULATION (continued)

## 3. ADDITIONAL FEES

Larg eFee Code	Entit yFee (\$)	Larg eFee Code	Entit yFee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing request for reexamination	
112	920*	112	920	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	950	217	475	Extension for reply within third month	
118	1,510	218	755	Extension for reply within fourth month	
128	2,060	228	1,030	Extension for reply within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,320	241	660	Petition to revive - unintentional	
142	1,320	242	660	Utility issue fee (or reissue)	
143	450	243	225	Design issue fee	
144	670	244	335	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional application	
126	240	126	240	Submission of Information Disclosure Statement	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	790	246	395	Filing a submission after final rejection (37 CFR 1.129)	
149	790	249	395	For each additional invention to be examined (37 CFR 1.129 (b))	

Other fee (specify)

Other fee (specify)

SUBTOTAL (3) (\$0.00)

\*Reduced by Basic Filing Fee Paid

## SUBMITTED BY

## Complete (if applicable)

Typed or printed name

Timothy Croll

Reg. Number

36,771

Signature

2TRhU

Date

23 JUN 04

Deposit Account User ID

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**LSI LOGIC****FAX COVER SHEET**

**LSI LOGIC CORPORATION**  
Office of General Counsel  
1621 Barber Lane  
M/S D-106  
Milpitas, CA 95035  
Fax: (408) 433-7460

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**CENTRAL FAX CENTER**

**JUN 23 2004**

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**Date:** June 23, 2004  
**To** **Name:** USPTO – Box: IDS  
**Fax:** (703) 872-9306  
**Phone:** (703) 305-8283

**From:** **Name:** Manu Kashyap, Intellectual Property Paralegal  
Corporate Legal Dept.  
**Telephone:** (408) 433-7475  
**Fax:** (408) 433-7460

**Re:** 10/721,971

Number of Pages Including this Page 5

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**MESSAGE:**

**US Serial No.: 10/721,971**  
**Filing Date: 11/24/2003**  
**Group Art Unit: 2811**  
**Docket No: 03-1119**  
**Examiner:**  
**Filing of IDS**

Please notify us immediately if any pages are not received.